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C08G 77/00
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(54) Title: POLYMER DERIVED CERAMIC MATERIALS

(57) Abstract: The invention provides a composition that includes a first monomer comprising at least one ethylenically unsaturated group and at least one Si-N linkage, and a second monomer comprising at least one thiol functional group. The invention also provides a method of forming a ceramic material and process for forming a three-dimensional ceramic material.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/26406

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B29C 35/08; B05D 3/06; C08J 3/28; C04B 35/14, 565, 584; C08G 77/00.
US CL : 501/88, 92, 96; 264/401; 430/269; 522/83, 172; 528/25, 26, 32.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 501/88, 92, 96; 264/401; 430/269; 522/83, 172; 528/25, 26, 32.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 4,064,027 A (GANT), 20 December 1977 (20.12.1977), Abstract, column 1, line 47, to column 2, line 21, column 2, lines 55-68, column 4, lines 47-64, Examples 12-13.	1-4,8 5-7
X — Y	US 4,828,663 A (REEDY, JR. et al.) 09 May 1989 (09.05.89), Abstract, column 2, lines 45-61, column 3, lines 26-28, column 8, lines 3-31, Example 8.	1-4,7,9-12,15-19,23,24 5,6,8,13,14,20-22
X — Y	US 4,816,497 A (LUTZ et al.) 28 March 1989 (28.03.89), Abstract, column 2, lines 32-42, column 4, lines 15-32, column 8, lines 10-66, and Examples 1-8.	1-4,7-12,15-19,23,24 5,6,13,20-22
X — Y	EP 0 437 247 A2 (DOW CORNING CORPORATION) 17 July 1991 (17.07.91), Abstract, page 2, lines 25-39, page 4, lines 16-65.	1-4,7 5,6,8



Further documents are listed in the continuation of Box C.



See patent family annex.

Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	EP 0 456 346 A2 (DOW CORNING CORPORATION) 13 November 1991 (13.11.91), Abstract, page 2, lines 38-55, page 3, line 56, to page 4, line 9, page 4, lines 20-26,	1-4,8 — 5-7
X — Y	EP 0 665 269 A2 (LOCTITE CORPORATION) 02 August 1995 (02.08.95), Abstract, page 3, lines 34-53, page 4, line 42, to page 5, line 24, page 6, lines 4-10.	1-4,8 — 5-7

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST, JPO, DERWENT, EPO: ceramic, photoiniator, radiation, silicon with carbide, nitride or oxide, vinyl allyl alkenyl methacryloyl, polysilazane, thiol mercapto, sulfhydryl, three-dimensional , sterolithography, imagewise, patterning prototyping, solid imaging, pyrolysis, pyrolyzing.